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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,504	03/16/2004	Richard Henry Erving	2000-0675CON	3660
26652	7590	07/07/2005	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			SWERDLOW, DANIEL	
			ART UNIT	PAPER NUMBER
			2646	
DATE MAILED: 07/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/802,504

**Applicant(s)**

ERVING ET AL.

**Examiner**

Daniel Swerdlow

**Art Unit**

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-27 is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☒ Claim(s) 19-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 16 and 17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,771,769. Although the conflicting claims are not identical, they are not patentably distinct from each other because all elements of Claims 16 and 17 are comprehended by Claim 1 of U.S. Patent No. 6,771,769.

3. Claim 18 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,771,769 in view of US Patent 5,970,137 to Le Damany et al.

4. Regarding Claim 18, Le Damany discloses comparing peak envelope signals for speaker output (Fig. 1, reference SED6) and microphone input (Fig. 1, reference SED1) to determine acoustic echo path gain (i.e., inserted loss) (column 8, lines 4-8). Le Damany further discloses that such an arrangement optimizes listener comfort at both ends of the conversation (column 1, lines 40-43). It would have been obvious to one skilled in the art at the time of the invention to

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apply the envelope detection taught by Le Damany to the device claimed in Claim 1 of U.S.

Patent No. 6,771,769 for the purpose of realizing the aforesaid advantages.

***Allowable Subject Matter***

5. Claims 16 through 22 would be allowable if the nonstatutory double patenting rejections above were overcome. Claims 19 through 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Regarding Claim 16, US Patent 5,646, 990 to Li discloses a speakerphone system that determines gain switching (i.e., introduces loss in the inactive path) from information received from transmit and receive signal detectors (i.e., relative signal levels) (column 7, lines 1-11). Therefore, Li discloses all elements of Claim 1 with the exception of applying an identification mark to output from a voice output device. US Patent 6,301,364 to Lowmiller discloses tagging (i.e., applying an identification mark to) a signal for a speaker (i.e., output from a voice output device) (column 2, lines 58-67) for the purpose of producing a more distinct output from a correlation process. In addition, the tagging disclosed by Lowmiller includes adding a pseudo-random noise signal to the input signal that corresponds to the voice output signal claimed (column 2, lines 40-44). Other prior art, for example US Patent 5,428,604 to Fuda, teaches use of a random noise signal by itself to train an echo canceller (Fig. 1, reference 9; column 2, line 65 through column 3, line 5). However, the prior art neither discloses nor makes obvious the

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modulation of the pseudo-random noise signal with the envelope of the speech signal. Therefore Claim 16 is allowable matter.

7. Claims 17 through 22 are allowable matter due to dependence from Claim 16.

8. Claims 23 through 27 are allowed.

9. Regarding Claim 23, Li discloses a speakerphone comprising a loudspeaker and a microphone (Fig. 2, reference 210, 236; column 7, lines 29-33). Le Damany discloses using envelope detection in the speaker output path of a speakerphone (Fig. 1, reference SED6) to determine acoustic echo path gain (i.e., inserted loss) (column 8, lines 4-8). Lowmiller discloses adding a pseudo-noise output from a pseudo-noise generator to the speaker output path of a speakerphone (column 2, lines 40-44). Other prior art, for example US Patent 5,428,604 to Fuda, teaches use of a random noise signal by itself to train an echo canceller (Fig. 1, reference 9; column 2, line 65 through column 3, line 5). However, the prior art neither discloses nor makes obvious the modulation of the pseudo-random noise signal with the envelope of the speech signal. Therefore Claim 23 is allowable.

10. Claims 24 through 27 are allowable due to dependence from Claim 23.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow  
Examiner  
Art Unit 2646

ds  
6/30/05